

REMARKS

The above amendments, along with the following remarks, are submitted to be fully responsive to the Office Action of August 8, 2006. Reconsideration in light of the present response and allowance of this application are respectfully requested.

Claims 1-15 were pending in the present application prior to the above amendment. In response to the Office Action, claims 1-6 have been amended. Therefore, claims 1-15 are still pending.

Referring now to the Office Action, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 410116801A. This rejection is respectfully traversed, as Ichihara does not describe each and every feature set forth in the pending claim.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,724,222 to Feldman. This rejection is also respectfully traversed, as Feldman does not describe each and every feature set forth in the pending claims.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of U.S. Patent 5,907,770 to Yamazaki, et al. and in view of U.S. Patent 4,724,222 to Feldman. These rejections are respectfully traversed, as neither Yamazaki et al. nor Feldman, alone or in combination with Applicant's Admitted Prior Art, teach or suggest each and every feature set forth in the pending claims.

Ichihara

Amended claim 1 recites “[a] laser irradiation stage comprising a surface having a cylindrical shape curvature in a single direction on which an object to be irradiated by a beam is placed, wherein the beam is expanded in the single direction, wherein the object to be irradiated is placed between a center of the radius of the curvature and the surface, and wherein the stage is incorporated into a laser irradiation apparatus” (emphasis added).

Support for the amendment can be shown in the specification at page 14 lines 9-12 and Fig. 1.

Ichihara, however, only describes a convex shape stage, for example in Figs. 5 and 6. In amended claim 1, a concave shape stage is disclosed, when the center of the radius of the curvature is formed at apposition over the surface. Because Ichihara does not describe a concave shape stage, as is recited in amended claim 1, Applicant respectfully submits that Ichihara does not anticipate claim 1. Accordingly, Applicant respectfully requests this rejection be withdrawn.

Feldman

As noted above, amended claim 1 recites “[a] laser irradiation stage comprising a surface having a cylindrical shape curvature in a single direction on which an object to be irradiated by a beam is placed, wherein the beam is expanded in the single direction, wherein the object to be irradiated is placed between a center of the radius of the curvature and the surface, and wherein the stage is incorporated into a laser irradiation apparatus” (emphasis added). Support for the amendment can be shown in the specification in Fig. 1. Similarly, amended claim 3 recites “[a] laser irradiation stage comprising a surface having a concave shape curvature in a single direction on which an object to be irradiated by a beam is placed, wherein the beam is expanded in the single direction, wherein the object to be irradiated is placed between a center of the radius of the curvature and the surface, and wherein the stage is incorporated into a laser irradiation apparatus” (emphasis added).

As noted by the Examiner, Feldman generally describes a concave wafer chuck used with an energy beam apparatus (col. 6, ln. 11-20). However, Feldman fails to teach a positional relation between the curvature of the surface of the laser irradiation stage and the expanded beam, as is recited in amended claims 1 and 3. Thus, Feldman fails to describe the second feature. Accordingly, Applicant respectfully submits that Feldman does not anticipate claims 1 and 3, and thus this rejection should be withdrawn.

Applicant’s Admitted Prior Art (AAPA), Yamazaki, et al., and Feldman

As noted above, Feldman does not show a positional relation between the curvature of the surface of the laser irradiation stage and the expanded beam, as in amended claims 1 and 3. Additionally, Yamazaki, like Feldman, describes a concave wafer chuck used with an energy beam apparatus, but does not describe the positional relation between the curvature of the surface of the laser irradiation stage and the expanded beam, as posted above with respect to amended claim 1. Thus, neither Feldman nor Yamazaki teach or suggest the second feature of amended claim 1. Accordingly, Applicant respectfully submits that Yamazaki and Feldman do not render claims 1 and 3 unpatentable, and that this rejection be withdrawn.

Additionally, amended claim 2 recites “[a] laser irradiation stage comprising a surface having a concave curvature on which an object to be irradiated by a beam is placed, wherein the object to be irradiated is placed between a center of the radius of the curvature and the surface, wherein the stage is incorporated into a laser irradiation apparatus, and wherein radius of the curvature with respect to a certain focal length of a condenser lens falls within a

range of the following two equations: $y = 2539.3 \ln(x) - 21447$; $y = 1666.7 \ln(x) - 13098$, where y is focal length of the condenser lens, x is the radius of the curvature” (emphasis added).

Applicants respectfully submit that neither Yamazaki nor Feldman teach or suggest a third feature that “radius of the curvature with respect to a certain focal length of a condenser lens falls within a range of the following two equations: $y = 2539.3 \ln(x) - 21447$; $y = 1666.7 \ln(x) - 13098$, where y is focal length of the condenser lens, x is the radius of the curvature”, as recited in amended claim 2. Accordingly, Applicant respectfully submits that Yamazaki and Feldman do not render claim 2 unpatentable, and that this rejection be withdrawn.

Further, claims 4-6 recite the feature of “the third means comprises a first surface on which the object to be irradiated with the laser beam expanded in the first direction and condensed in the second direction is placed, the first surface having the curvature in the direction parallel to the first direction”. Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness in this rejection.

In MPEP § 2142 section, the following is taught. “To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).”

With respect to claims 4-6, the Examiner is silent regarding the above-mentioned feature related to “the third means....” Because the Examiner fails to present a convincing line of reasoning as to why one skilled in the art would have found the claimed invention to have been obvious in light of the teachings of the references, Applicant respectfully requests the Examiner withdraw the rejection.

Dependent claims 7-15 depend from independent claims 4, 5, and 6, and are therefore

allowable at least for the aforementioned reasons, and further for the additional features recited.

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if any issue remains after considering this response, the Examiner is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,

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